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ABSTRACT

Intended for teachers of gifted children, the handbook is organized into teaching strategies with a brief introduction followed by examples for each strategy. Stressed is the use of the strategies to develop the teacher's own creativity. Described are the following strategies: self awareness activities (such as boundary breaking and encounter lessons); the use of models in curriculum building (such as those of J.P. Guilford and B. Bloom); creativity (as it relates to process and product); the use of questions as an aspect of discussion; guidelines for using small groups; independent study; constructing a "Things to Do" box; simulation (with examples of teacher developed simulation games); inquiry, particularly as it relates to science; use of a central stimulus as a focus for enrichment in the arts, music, and literature; synectics (use of a product matrix, personal analogy, and metaphor); and guidance and counseling of gifted children and their parents. (DB)

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Teaching Gifted Children

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TEACHING GIFTED CHILDREN

by

Dr. Dorothy Sisk
University of South Florida
Tampa, Florida

Pursuant to a contractual agreement with the South Carolina Department of Education as part of the Title V project, "Interstate Cooperative Effort for Gifted and Talented."

James H. Turner, Coordinator
Programs for Gifted, and
Title V Project Director

Dr. Tom Parks, Chief Supervisor
Curriculum Development Section

Mr. Henry Hollingsworth, Director
Office of General Education

Dr. Charlie G. Williams
Deputy Superintendent of Instruction

Dr. Cyril B. Busbee
State Superintendent of Education
Columbia, South Carolina

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Introduction

Being a teacher of the gifted involves being enmeshed in an ongoing search for meaning--not a search for just concrete or even abstract knowledge--but also a search for who are we? Part and parcel of this search is the continued growth of both teachers and students.

This handbook is an attempt to facilitate the growth of teachers in utilizing teaching strategies with gifted students that will help maximize their search for meaning.

The book begins with Self Awareness Activities: Boundary Breaking and Encounter Lessons which are a necessary beginning point for any interaction that a teacher will plan with gifted students. This is followed by the Use of Models (such as J. P. Guilford and Benjamin Bloom) to Guide Curriculum Building.

Creativity is discussed as it relates to process and product, personality characteristics of creative persons are introduced, and examples of creative problemsolving are explored.

The Use of Questions as an Aspect of Discussion as a Teaching Technique is presented along with the characteristics of an atmosphere which would be conducive to discussion.

This is followed by a section on small groups. The importance of small groups in education for the gifted cannot be underestimated and Small Groups: or Making Groups Work for You is included with guidelines for building psychological support and specific lessons to be used with gifted students.

Independent Study is presented as a viable option including worksheets that teachers can use to program a gifted student.

To answer the plaguing question of "What can I do?"--a section on how to construct a Things to Do Box is discussed, including directions on how to build one.

Simulation is presented with several examples of simulation games which were devised by classroom teachers and a guide for simulation development is included.

Inquiry, particularly as it applies to Science, is delineated and followed by the use of Central Stimulus: A Vehicle for the Humanities, which includes specific examples for enrichment in the arts, music, and literature.

A somewhat new area for education of the gifted, Synectics, is discussed, including the use of a product matrix, personal analogy and metaphor.

The last section is on Guidance and Counseling Needs of Gifted and Their Parents: Use of the Child Study Technique which rounds out the skills a teacher of the gifted needs - facilitating total development of the gifted child.

The handbook is organized to present a brief introduction to a teaching strategy, followed by examples and opportunities for teachers to try their hand in building their own lessons. The handbook is intended to free teachers to utilize their own individual creativity in the process of becoming a teacher of gifted children. It is my hope that you will enjoy using the handbook as much as I enjoyed preparing for it--for all the ideas were nurtured and developed in interactions with both teachers of the gifted and gifted children.

The clever illustrations were executed by two very gifted adults, John McDevitt, co-director of Leon County Gifted Child Project, Tallahassee, Florida, and Claire Smith, a University of South Florida graduate student in gifted education, Tampa, Florida.

You will note that each section is numbered and can be removed and utilized in in-service workshops independently of the other sections, and yet the strategies build upon one another in developing facility and skill in teaching gifted students and can be used sequentially.

Self Awareness
Activities

Self Awareness Activities: Boundary Breakers and Encounter Lessons

The importance of self awareness to gifted education cannot be overestimated or underestimated--it is a vital part of the education for life situations for gifted which calls forth decisionmaking skills, critical thinking and reasoning, creative thought and lastly action. The gifted in order to utilize their potential must be keenly aware of their frame of reference which includes their basic beliefs, attitudes and values. Through this self awareness, they can become more aware of the frame of references of others.

Much of the curriculum and life experiences of the gifted requires that they deal with theoretical questions and issues as if the decisionmaking about these questions and issues did not involve a frame of reference. The decision or 'choicemaking' calls for open, honest discussion and this is difficult for both teachers and students. One way to encourage self awareness and the awareness of others is through a step-by-step sequence which helps to build confidence in the gifted student's ability to discuss and to relate to others.

Use of Boundary Breaking Questions

Boundary breaking questions are a series of questions that can be utilized to develop intuitive expression, listening skills and most importantly relating to others and self awareness. For as each individual intuitively responds to the question, they often have moments of insight -"is that how I feel--yes, I guess it is!"

The procedure for using boundary breaking questions is simple. It requires no equipment, only a circular arrangement of individuals either in chairs or on the floor. The leader states the question and then begins by calling upon a student within the circle. This person responds and it is the person to their right or left that responds next. It is important that the leader responds with the group and becomes a group member in the process.

Now and then a person cannot respond either because they block the question and don't wish to respond, or perhaps they need more time to ponder and reflect. This can be indicated by saying 'pass' and the leader returns to this person at the end of the first round of questions for a response. At this time if the person wishes to not respond, they can indicate this by 'pass-pass.' Passes are to be accepted with as much positive acceptance as any response. The psychological safety and acceptance is crucial to the success of boundary breaking.

The leader must model keen interest and listening. If there are side comments, the leader waits patiently and then gently moves on to the next person. After several sessions, the side comments which are often prompted by nervousness dwindle to a minimum as the group begins to enjoy the beauty of one another--"I didn't know he felt that way--I do too" or "And I thought he was such a cold fish" are just a few of the thoughts that might well go through the minds of gifted as they listen to one another's responses and correct their perceptions of themselves and others.

Boundary breakers can be used at the beginning of a lesson to encourage transition from other classes and to begin to spark interest in an upcoming topic or at the end of a lesson to tone down enthusiasm and to rebuild a feeling of 'groupness.'

Examples of Boundary Breaking Questions

1. If you were to take on an animal trait, what trait would you choose?
2. If you were to star in a television show, what show would you star in?
3. If you could be any age, what age would you choose?
4. If you were a product in a dairy bar, what would you be?
5. If you could establish a new holiday, what day would you celebrate?
6. If you could have dinner with any famous person, whom would you choose?

7. If you had one free hour of time, how would you spend that time?
8. If you could write your own epitaph, what would you write?
9. If you were a musical term, what would you be - acid rock, jazz, etc.?
10. What do you see yourself doing 10 years from now?
11. If you had three wishes, what would one be?
12. What color is love?
13. What would you like to know more about?
14. If you could spend an hour just talking to one person, who would that person be?
15. What do you think is the world's most serious problem?
16. If you could change one thing about yourself, what would that be?
17. If we were making a record of happiness, what sound would you add?
18. What is your favorite food?
19. If you were to be a note in a song, what song would you choose?
20. What is your favorite time of day?

As can be noted when reading over the questions, they go from simple fun ones to more personal responses requiring thought. The leader should vary the questions, perhaps, beginning with a light one and proceeding to more deep ones. Three or four should get a group ready to work well together in further awareness activities.

Encounter Lessons

Encounter lessons are activities to stimulate creativity and positive feelings of worth. The use of the gifted's inner strengths and their perception of these inner strengths can aid in the further development of their feelings about themselves or what can be called self concept. If gifted children learn to value themselves and believe that they are capable, they will be more apt to succeed in what they attempt--being free to venture into the unknown and risk take.

Encounter lessons are a vehicle to self perception and awareness of inner strengths. An encounter lesson is an activity based on four psychological principles which can be expressed in terms of teacher behavior. (Rogers, 1969)

The teacher will:

1. Help the student think about who he is and what he can and ought to do.
2. Help the student to feel valuable and worthwhile.
3. Help the student to see learning as relevant to his individual needs.
4. Help the student to develop and maintain a learning atmosphere that reflects psychological safety and freedom.

Encounter lessons are short moments, lasting from fifteen to twenty minutes. They are active lessons involving seeing, hearing and often touching. The object is an 'encounter' with ideas and others. The activities should be as open-ended as possible, thus providing the gifted free rein for their uniqueness. They work best with small groups of eight to ten gifted youngsters and are ageless--that is, they work well with elementary and secondary students. The subject matter and the questions decide the maturity level of the group.

Examples of Encounter Lessons

Dining Room Chairs

or

Chairs Fantasy*

Objectives: to foster creativity

to identify with something and become that something

Setting the Stage: Imagine that you are all chairs arranged around a dining room table.

Leading Questions:

1. Where is your position at the table?

---

*Developed by Phyllis Sturms, teacher.

2. What famous person would you like to sit upon you?

3. How would you feel if a 300 pound man sat upon you?

4. What was your most important moment as a dining room chair?

5. What type of family would you like to belong to?

6. If you could change yourself, how would you do so?

Evaluation Questions:

1. How did you feel in this exercise? Important?

2. Did you have any feelings that were like the other chairs?

3. What did you notice about your role as a chair?

Extenders for Other Activities:

Study various Styles of Furniture and their history

Design and needlepoint a chair seat

Refinish an old chair as a class project

Conduct a unit on the building of chairs

In this lesson the teacher would use the interest, motivation and curiosity aroused by the encounter to extend to other more academic pursuits. In this way the encounters are tied to the curriculum and don't become 'fun appendages.'

Today's News*

Objectives: To foster creativity

To gain an atmosphere that reflects psychological safety and freedom

Setting the Stage: You are all pages of a newspaper.

Leading Questions:

1. Describe any pictures on you.

2. What was your biggest headline?

3. How important are you to the newspaper as a whole?

---

* Developed by Janet Vest

4. What article would you most like to have put on you?

5. Where would you most like to be distributed?

6. If you were recycled, what would you like to come back as?

Evaluation Questions:

1. Which page do you think each person was?

2. Which question was the most interesting to you?

3. Which was the most difficult for you to answer?

4. Why do you think that question was difficult for you?

5. How did you feel being a page in a newspaper?

Extenders:

1. Do a unit on newspapers.

2. Study where paper comes from.

3. Write newspaper articles.

4. Study the difference between a newspaper article and an editorial.

5. Work on school newspaper.

6. Sell ads for local paper or newspaper for school.

7. Photography unit as way of telling news.

Alphabet Fantasy*

Objectives: To foster creativity

To identify with something and become that something

To interact with others and build on ideas

Setting the Stage:

You are part of a family with twenty-six members. You are used many times a day. You are letter 'Q' in the alphabet.

---

* Developed by Leigh D. Harrison, Supervisor.

Questions:

1. How do you feel about your middle position in your family?
2. What would you do to allow more space in the dictionary for yourself?
3. How do you feel about being associated with another member of your family, the letter 'u' so often when none of the other letters in your family need this special help?
4. What letter of the alphabet would you like to be?
5. How do you feel when someone can't remember how to write you and puts your downward stroke on the wrong side?
6. How would you like to be taught so that students would remember you better?

Evaluation Questions

1. Do you think families are important?
2. Is it necessary to have a family working together? How does the alphabet family work to prove this statement?

Extenders:

Use the dictionary to add 'Q' words to their vocabulary.

Art work using the letter of the alphabet.

Research into the history of the alphabet.

Write poems or stories using as many words containing the letter 'Q' as possible.

Making Your Own Encounters

Encounter lessons can be utilized as enrichment lessons in and of themselves, or they can grow from the regular curriculum. For example, a unit on manufacturing for 4th grade can be enriched by using an encounter dealing with a box of candy such as 'Candy Fantasy' developed by Leigh Morrison. Through questions such as 'How do you feel about being packed so tight with a lid closed over you most of the time?' the students could be led to research the candy industry, use

and adjust ingredients of a candy recipe, study health and packaging laws and, in summary, experience vital learning.

Try your hand at developing your own encounter. The format is as follows:

Encounter

Objectives:

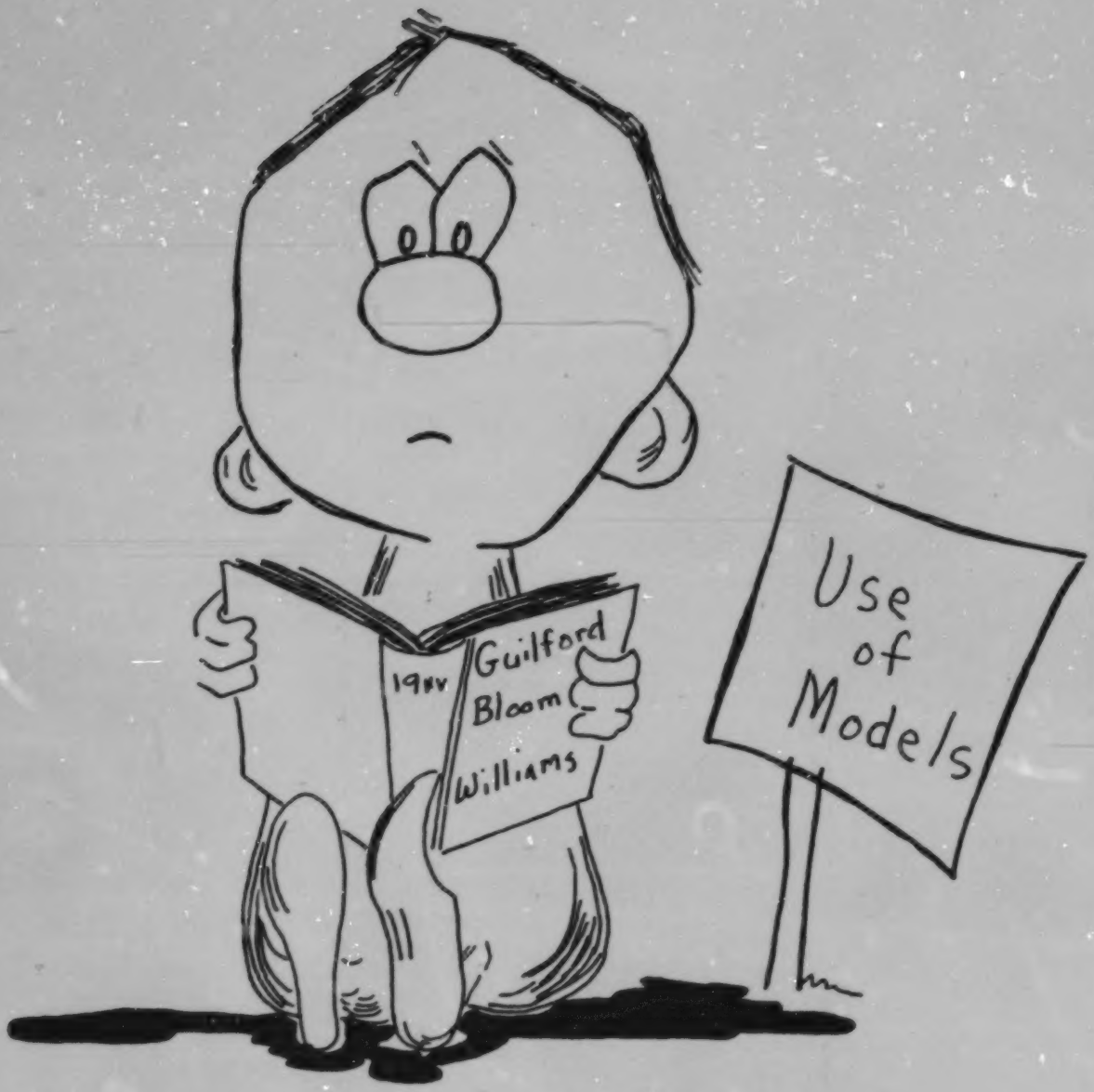
Setting the Stage:

Leading Questions:

Evaluation Questions:

Extenders:

Gifted children love encounters and begin to anticipate the next clever idea the teacher of their classes brings to them. They make the difference between drudgery and traditional techniques and assignments and 'come alive classrooms' where fantasy has a place and gives a lift to learning.


19xx
Guilford
Bloom
Williams
Use
of
Models

Use of Models in Building Curriculum

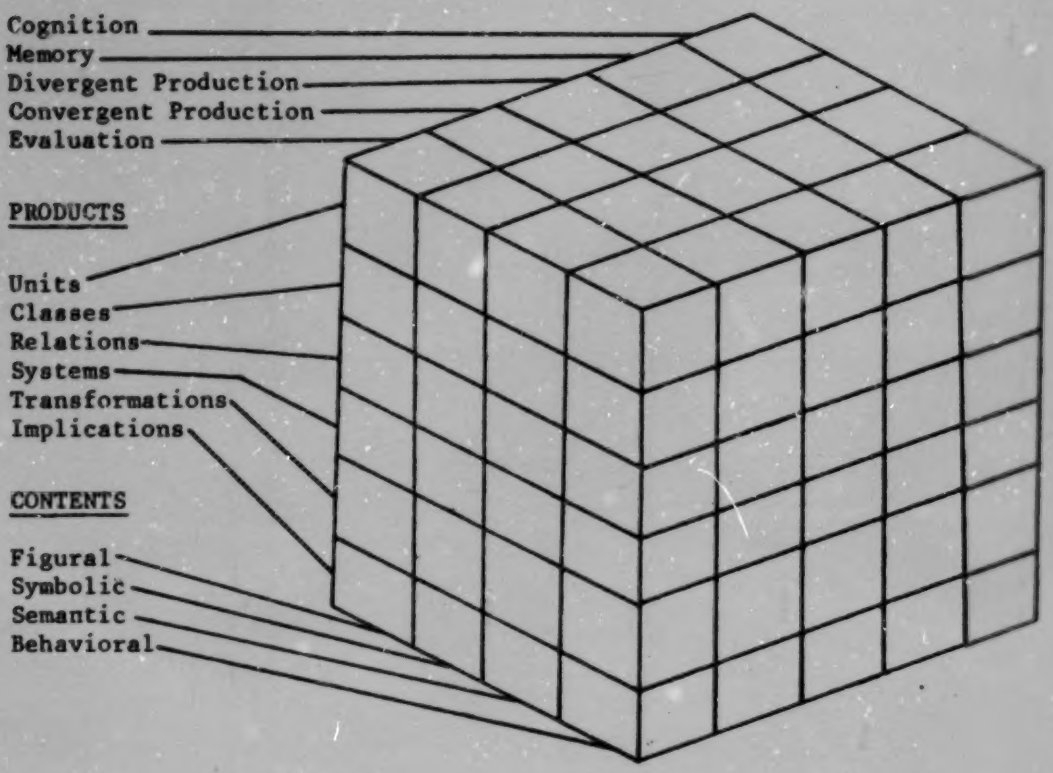
In building curriculum for gifted students, the use of various theoretical models has proved to be expedient in helping new program developers formulate philosophical standards, strategies and activities that are congruent. Models can supplement and complement one another by providing opportunities for gifted students to experience cognitive and affective growth.

One such model is that of Benjamin Bloom and the taxonomies dealing with the affective and cognitive domain. In the affective domain, Bloom lists: receiving, responding, valuing, organization and characterization. Receiving is defined as the directing of attention, responding as behavior accompanied by feeling of satisfaction, valuing as the ascribing of worth or emotional acceptance to a situation, etc., and organization as the ordered relationship of complex values and characterization as when generalized sets of values are consistent with the total philosophy of beliefs.

A teacher of the gifted who wants to plan lessons utilizing both affective experiences and cognitive experiences could utilize the Bloom taxonomy and supplement the intellectual operations of J. P. Guilford in the Structure of Intellect (SOI). The operations level of the SOI are as follows: cognition, memory, convergent thinking, divergent thinking and evaluation.

The ideas basic to the structure-of-intellect theory were formulated in the late 1950's, and were successively refined until the present model was formulated. The model is a three-way classification of intellectual abilities designed to encompass and organize intellectual-aptitude factors. It has also served to predict the existence of undiscovered factors.

The three dimensions of the model specify (a) the operation, (b) the content, and (c) the product of a given intellectual act.



Structure of the Intellect

Guilford defines cognition as understanding, discovery, rediscovery, awareness and comprehension. Memory is the retention and recall of knowledge. Convergent thinking is the reorganization of information and divergent thinking is imaginative, spontaneous, and fluent self expression. Lastly, evaluation is judging, assessing and evaluating.

An example of how a lesson could be planned utilizing the two models is as follows:

For a group of eighth grade gifted students in English the short story The Interlopers by H. H. Munro (Saki) could be distributed and time given for silent reading. In this story by Saki, two men, Gradwitz and Znayem, who are mortal

enemies experience a terrifying situation and out of this experience is born a new relationship and insight into life. Following the silent reading, the teacher could utilize questions from the cognitive domain following the SOI model such as the following:

Cognition - For what were Gradwitz and his men hunting? Why?

Memory - During what time of the year did the story take place?

Convergent - What made these two men enemies? What brought about the sudden change of emotions between the two men?

Divergent - What do you think might have happened if one of the men had been killed by the fallen limb? What would you have done if you were one of men after having spied the wolves?

Evaluation - Do you think Gradwitz's attitude was appropriate toward Znayem? Why or why not?

Through planning questions to recover all levels of the Guilford intellectual operations, the teacher will consciously lead the students from the lowest level of thinking--that of cognition to the higher and more challenging levels of evaluative thinking.

The affective domain can be tapped through questions based on Bloom such as:

receiving - Did you find the story interesting?

responding - What part of the story touched you the most emotionally?

valuing - Do you feel there was any worthwhile moral to this story?

organization - Does this moral have present day application? How?

characterization - Can you relate this story to any feelings you have had about events in your own life?

Again with the guidance of a model such as Bloom, the teacher plans in an organized fashion to explore the values, insights and attitudes of the students in a deliberate manner.

Observation of teachers of the gifted in action who have planned lessons around the SOI or Bloom indicates that the level of thinking exhibited by the children is commensurate with the types of questions and activities planned by the teacher.

Choose your own short story and write affective questions using the following format:

Name of Story

Discussion Questions

Receiving (directing of attention)

Responding (behavior accompanied by feeling of satisfaction)

Valuing (ascribing worth or emotional acceptance)

Organization (ordered relationship of complex of values)

Characterization (generalized sets consistent with total philosophy or beliefs)

Now try the format for the use of Guilford and cognitive questions:

Name of Story

Questions utilizing Guilford's Domains of Intellectual Operations

Cognitive (understanding, discovery, rediscovery, awareness and comprehension)

Memory (retention and recall of knowledge)

Convergent (reorganization of information)

Divergent (imaginative, spontaneous and fluent self expression)

Evaluation (judgment, assess and evaluate)

Still another helpful model is that of Frank Williams. The Williams model can be utilized in planning specific activities for developing creativity in gifted. The model is illustrated as follows:

The dimensions of subject matter (D^1) and teaching strategies (D^2) interact to produce the pupil behaviors (D^3) or dimensions of fluent, flexible, original and elaborative thinking which Williams calls intellective thinking. Feeling or affective behaviors, he labels as curiosity, risk taking, complexity and imagination.

An example of a lesson based on the Williams model is demonstrated:

Strategies #15, #23, and #5*

Objectives: To encourage original and imaginative thinking through science

Strategies: Process of Invention, Visualization Skill and Provocative Questions

Materials: Pencil, paper, rulers, blue print, compass, T-square, books on mechanical machines, gears, pulleys, etc.

Activities: Display a blueprint for students to view. List as many things you think this machine can do. What are some unique ways this machine could be powered? List the materials needed to build this machine. From your list, choose the best way to use this machine. Name it. If you could change this machine, how would you improve it? Draw your own blueprint. Give a description of what your machine would do.

Follow-up Activities: Make a model of your machine

Make the 'real thing'

---

*Developed by Sharon Shelton, Tony Hughers, Carole Marler and Peggy Burr, Teachers of the Gifted in Lakeland, Florida

Try your own lesson, first choose a strategy such as intuitive expression, a subject matter area like language arts and plan a lesson. The behaviors in dimension (D-3) become your objectives.

Strategies #_____

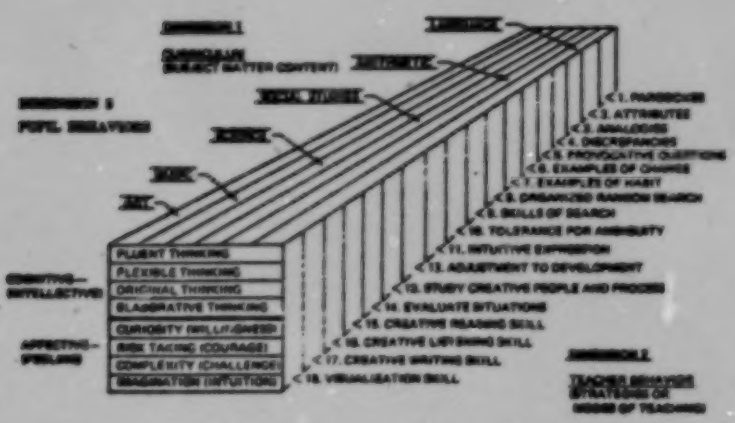
Objectives:_____

Activities:_____

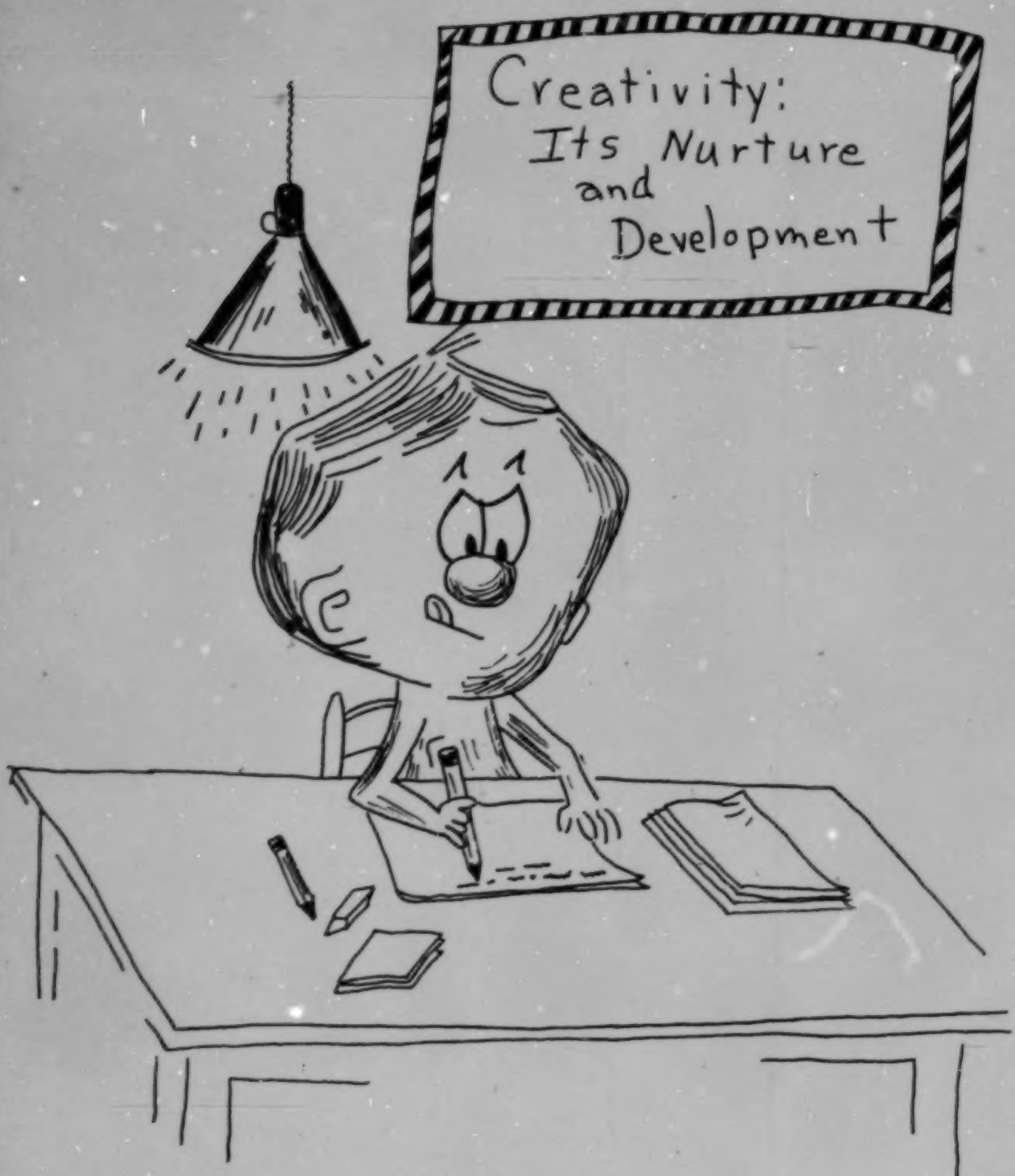
The process of becoming a teacher of gifted children is a challenging experience and by acquainting yourself with models such as Guilford, Bloom, or Williams, you will become involved in creative thinking. Through combining your own potentialities as a creative thinker and the models, you and the gifted children can explore many exciting facets of learning.

A Model for Implementing Cognitive-Affective Behaviors in the Classroom

D1=D2-D3



From: Classroom Ideas for Encouraging Thinking and Feeling
By: Frank Williams, D.O.K. Publishers, Inc., 771 Delaware Ave., Buffalo, N. Y. 14209


Creativity:
Its Nurture
and
Development

J. P. Guilford, a noted psychologist and researcher in creativity conceptualizes creative thinking as part of thinking in general. He distinguishes between convergent and divergent thinking as convergent thinking being directed towards a single answer and divergent thinking being directed toward unconventional and unexpected responses.

In providing the environment for divergent thinking production, the process aptly might include opportunities for the following:

1. Openness. Activities that would provide for deliberate letting in of data and new experiences with little or no effort to judge.
2. Focusing. Activities that provide back and forth mental efforts which would give order and meaning to the data or experiences.
3. Discipline. Activities that provide opportunities for concentration, hard work and self discipline.
4. Closure. Activities where the student senses the product is finished, made over or in some cases destroyed.

The creative process may take a short period of time or longer segments of time depending on the age of the gifted child. Some products may be personal and imaginative while others may involve solutions of problems which are not strikingly unusual.

Characteristics of the Creative Adult

Research studies of artists, writers, scientists, and other highly creative adults include traits such as the following which can be inferred characteristics of creative children or indeed characteristics that educators would want to continue to foster.

Fluency - ability to think of many ideas, solutions or problems

Flexibility - ability to turn ideas and materials to new and different or unusual ideas

Elaboration - ability to work out details of ideas or solutions

Tolerance of Ambiguity - ability to work with conflicting ideas and values and bring about a reconciliation.

Originality - ability to go beyond to unusual and unique forms, uses, ideas, approaches and solutions.

Sensitivity - ability to sense problems, to see deficiences and needs in life.

Curiosity - openness to ideas and experiences.

Breadth of Interest - wide range of interest.

Independence - ability to be self reliant and forceful.

Reflection - ability to consider and reconsider.

Action - ability to put ideas into action.

Concentration and Persistence - ability to work hard, long and consistently.

Commitment - ability to give deep involvement.

Sense of Humor - ability to see and express the contradictions and ambiguities of life.

Expression of Total Personal Self - ability to express both male and female traits such as sensitivity, forcefulness, self awareness and independence.

The ideal classroom for the gifted child to develop his creativity would provide opportunities for the above characteristics to flourish. Activities would be provided for the sensitivity, curiosity and breadth of interest to continue to develop. Activities would provide for creative thinking as reflected to products that would call forth fluency, flexibility, originality and elaboration. Emphasis would be on both product and process and freedom to explore.

Classroom Activities to Encourage Creativity

Brainstorming as described by Alex Osborn in his book Applied-Imagination is a technique that could be used to provide an atmosphere which encourages new ideas. "The rules for getting as many ideas as possible are as follows."

1. Do not criticize ideas while they are being given.
2. The wilder the ideas, the better. It's easier to tame them down later than to think them up.

3. The more the better. The greater the number of ideas, the greater the possibility you will find some really good ideas.

4. Encourage combining and improving upon ideas already given.

To brainstorm with gifted children in the classroom, you might go about it this way. Write down the problem on the blackboard. Have the students suggest all the ideas which occur to them for solving the problem, no matter how silly some of the ideas seem.

Write down the solutions as they suggest them on the blackboard where all can see. Do not worry about overlapping ideas. You can, in fact encourage combining ideas or improving on ideas given by others. When the ideas are all in, have the group pick the ones which seem best.

Creative Problemsolving

Sidney Parnes (1966) in his Creative Behavior Workbook deals with the practical application of creative processes. He divides the process into fact finding which he defines as the picking out and pointing up the problem and problem preparation in which the data is gathered and analyzed. Following fact finding, comes idea finding in which idea production, or thinking up all possible leads to solutions, takes place as well as idea development which is the reprocessing of the resultant ideas by such means as modification and combination. Solution finding follows which includes evaluation or the verifying of the tentative solutions by tests and adoption wherein decision making and implementation of the final solution take place.

The object is to gain a clearer understanding of how to tackle a problem creatively, as well as an appreciation of some of the rewards for creative effort.

An example of an exercise in creative problemsolving is as follows:

Creative Problemsolving
Exercise

List below a challenge you now are facing or will be facing. State it as an idea finding question. Then restate it several times, trying to get to the broadest possible way of looking at it.

Challenge: In what ways might I _____

_____

_____

_____

Restatement 1. In what ways might I _____

_____

Restatement 2. In what ways might I _____

_____

Write below your best definition. Then list a variety of means that you could use to meet the challenge.

Definition- _____

Ideas- _____

_____

In the words of the classic playwright Aristophanes- "If you strike upon a thought that baffles you, break off from that entanglement and try another, so shall your wits be fresh to start again." Thus, by rethinking the definition and beginning again, often new ideas emerge.

The creative problem solving technique can be used with personal problems. Choose one of your irritating concerns. State it and list ways of solving the concern. Remember it is important to defer judgment. This is illustrated below:

My personal bug is _____

_____

Ideas for reducing the irritation are as follows. List below:

_____

_____

_____

Choice can be reached through an exercise in choice and followed by evaluation.

Choice Exercise

Choose from the above solutions your most promising ones. Then develop a plan for putting the ideas to use.

_____

_____

Plan for using Ideas: _____

_____

Evaluation

Evaluation criteria become a means of judging a given idea or ideas. Decide on something you want to purchase. Decide what criteria you want to use for evaluating the item you plan to purchase _____

_____

_____

Sometimes a rating chart can be used to help stimulate criterion decision making. The criteria can be listed and each solution can be rated on a 1-5 scale with one being low and 5 being high. The method very graphically portrays to the problemsolver the status of each solution.

Discussion will be very important in total understanding of fact finding, problem finding, idea finding and solution finding. A great deal of emphasis should be placed on applying the total process.

Another helpful activity that is fun in stimulating creative thinking is to use idea producing verbs such as:

Adapt	Minify	Reverse
Modify	Substitute	Combine
Magnify	Rearrange	

An example of how these verbs can be used is as follows:

Change IT

Choose something that you want to improve or change. Write it down in one square and then use the verbs to spur your thinking!

Object:_____ Object:_____

Ideas (magnify, minify and rearrange) Ideas (substitute or reverse)

_____ _____

_____ _____

_____ _____

The importance of nurturing and developing creativity in the gifted cannot be underestimated. With the help of specific strategies such as brainstorming and creative problemsolving techniques similar to the ones described in this section and others that you may develop, the existing or latent creative characteristics can and will be tapped.

If you were?
what would happen if?
Why?
Suppose?
Use of Questions

Use of Questions as an Aspect of Discussion As a Teaching Technique

First of all, to enable the classroom atmosphere to be conducive to discussion with a free flow of questions and answers, there must be a mutual respect and sense of self discipline involving one another's ideas. The teacher and the gifted children must be willing to welcome all ideas as valid contributions. It is also important that the classroom discussions follow some sort of order with one person talking at a time and emphasis on a variety of listening skills being used.

However, emphasis should be placed equally on the willingness to have one's responses probed -- both teacher and student responses. The why's and how's of arriving at conclusions are fair game in the class for the gifted.

Teachers of the gifted also need to become more aware that synthesizing, summarizing, and concluding can be done quite adequately by the students. If the teacher always has the concluding statement--the gifted begin to see this skill as one they need not develop. Along this line there are a variety of skills that gifted students and teachers need to learn, such as posing multi-level kinds of questions which, in turn, stimulate multi-level kinds of thinking.

The following guide may prove helpful for the teacher of the gifted in posing multi-level questions:

Question Guide

Purpose	Question
To further build the gifted student's vocabularly	Do any of you know another meaning of the word 'levity' as it was used to describe this situation?

To encourage interpretive thinking	Here we have further information and data, do you have any new ideas or hypotheses?
To encourage planning thinking	How might we go about testing this idea?
To encourage predicting thinking	What do you think will happen when Caliban sees Miranda?
To encourage creative thinking	How might we go about solving this predicament in another fashion?

Along with the necessity of learning to pose questions in discussions, the teacher of the gifted must also concentrate on the reactions to questions -- by both the students and the teacher. For example, it is not necessary to repeat the student's response. For many gifted students this is a demeaning act, as if it were saying 'your response is inadequate -- let me help.' Also the teacher should consistently react in a positive way, by reflecting -- good thinking -- perhaps not necessarily correct, but at least I am aware that you are thinking, responding and contributing. The self correction of discussion and the consequential building upon the correct response takes care of the feedback to the individual gifted student and it is not necessary for the teacher to weigh each response as to its correctness or incorrectness. Lastly, it is imperative that the teacher of the gifted be patient and not answer their own questions. Many good discussions end prematurely because the teacher brings premature closure.

When discussion is being utilized to its best advantage toward contributing to group goals and individual development of the gifted students, the group will manifest the following characteristics. Think of a most recent discussion that you have led and measure it against the list below:

Characteristics Conducive to Group Discussion and Maximum Self Development

flexibility in responding

listening skills practiced by all

patient listening

perceptive listening

openminded discussion

cooperative atmosphere

straightforward interaction

humor being displayed

helpful and supportive atmosphere

deep interest in all responses

encouragement of one another's ideas

synthesizing of information

enthusiasm

logical thinking

When a teacher of the gifted and the students display a majority of the above characteristics in discussion, they are well on the way to mastering this most important strategy for further development of ability and achievement.

SMALL
GROUPS
OPENING
UP
TO OTHERS

SMALL GROUPS:

OR MAKING GROUPS WORK FOR YOU

To facilitate the total development of the gifted child, the teacher must provide psychological support. Psychological support can be demonstrated by a teacher with actions that show the gifted students that they may speak their minds without fear of reprisal, sarcastic comments, or being put down. However, to build an atmosphere that has psychological support, there must be a conscious effort on both the part of the student and the teacher.

Guidelines for Teachers in Building Psychological Support

1. Questions should be opened as much as possible to encourage the gifted student to 'risk take' and respond.
2. Answers should be accepted as 'good thinking' or 'good postulations' rather than 'right responses.'
3. Planning, interpreting and most importantly the evaluating of classroom experiences should be done with the gifted students.

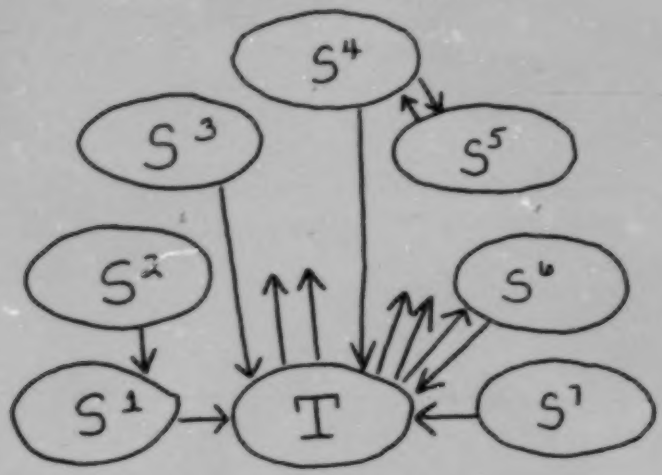
Guidelines for Students in Building Psychological Support

1. Tolerance for other's opinions should be reflected in actively disagreeing with concepts rather than people.
2. Active listening should be practiced by participants in discussions.
3. Contributions of ideas, values, and attitudes should be accepted as worthy additions by all members.

As can be seen by the foregoing guidelines, the supportive atmosphere demands that the teacher and student trust one another. In a supportive classroom, no one would be laughed at, rebuffed or worse yet ignored. In building the psychological support in a classroom, there is a partnership between the students and teacher; however, the teacher is the model. By the actions of the teacher, the students learn.

Seating in a classroom can also promote or discourage an atmosphere of psychological support. U-shaped seating arrangement, circles and squares stimulate involvement of all members as demonstrated by the lines of communication possible in the figure below:

Teacher/Student Discussion Flow



In this diagram the teacher asks a direct question to the group, as indicated by arrows to the center. Student #1 responds to the teacher. Then the teacher directs another question to the group and student #2 responds to student #1. Student #7 asks a question of the teacher who again responds to the group with yet another question. This prompts student #3 to respond to the teacher and student #4 to respond to student #5 and vice versa. This stimulated interchange between the two students causes #6 to ask a direct question of the teacher, who, in turn, responds to #6. One last question to the group is given a response by #4.

By the simple diagram it can be seen that in a span of less than five minutes, all students have made contact with some member of the group. The teacher has made five responses, four to the group and one direct response to a student's question. Five questions have been to the teacher, one question to a fellow student and one reciprocal interchange.

This figure is a step in the right direction for a teacher of the gifted. Questions have been asked to the group, calling for free response while only one 'answer' has been given to a direct question. The technique of batting questions back to the group, with a 'what do you think of that?' can be called reflective questioning or responding. It calls for a great deal of self control, as most of us fall into the trap of hauling out a well thought out response and 'teach' at that moment -- not realizing we are cutting off any change of creative thinking by the students.

The U is conducive to small groups as all can see one another as well as hear one another. The goal for a discussion would be for more student questions to the center and more responses to one another. This comes with practice and a valuing of all as valid group members -- members to be learned from.

Circles and squares can be used with large groups with entire classes being involved. However, the optimum number for small group work with gifted is fifteen.

For classroom work and writing assignments, clusters are great for stimulating co-operative involvement. Here groups up to six can work well 'clustered' around small tables or, if need be, six desks can be arranged to form a cluster. The disadvantage is that some youngsters will have to swivel to see the teacher and it may take time to move the chairs or desks for full circle of U participation. Yet in terms of facilitating better interaction among the gifted students, it is well worth the time and effort.

Psychological support can be stimulated through specific lessons or activities. Suggestions are as follows:

Celebrity Interviews

Each student is paired with another student who is interviewed as if he or she were a celebrity. Typical questions are asked such as 'what was your most favorite activity that you experienced in your early days of school' or 'if you could have any food, what would you choose' or 'what is your secret to success.'

The gifted students have a great deal of fun in telling about their celebrity and much of their keen sense of humor becomes evident.

Celebrity interviews are great to use when a group is newly formed and are not familiar with one another.

You Speak: I Speak

A topic is chosen and a student is chosen to begin. After he or she is finished, the person beside him must paraphrase to the first student's satisfaction the beginning statement before adding his own. This activity encourages active listening and paraphrasing skills. It works best in a circle where all can see and hear and can be used in a very structured around-the-circle format or at random, as the students indicate a willingness to participate.

Around-the-circle is good for beginning and hesitant groups as it has 'gentle pressure' to take your turn.

I Can Only Yes/No You

This activity is similar to inquiry training as it involves the teacher or student leader being asked questions that can only be answered by yes or no. The types of discussions that work best here are those that deal with openended topics. It works particularly well with science. In a sense, it encourages the students to make hypotheses and to problemsolve verbally.

Brainstorming

In brainstorming a question is posed and the group either records at their desks or at a chalkboard all the responses that can be given without judging them as they go along. The group should be encouraged to build on one another's ideas, to be wild and let themselves go.

After a reasonable time period (10-15 minutes) criteria can be established to use with group evaluation and decide which novel idea might be used. A take

off from this selection can be a further brainstorming session to figure out indepth solutions.

Gifted students very quickly pick up on the idea that we inhibit a lot of good ideas by concurrent judgment or 'shooting ideas down.'

Pithy Sayings

Using sayings such as "A person's life is like a piece of paper on which every passerby leaves a mark,' Chinese [illegible]verb-groups of gifted students can break into small groups with invididual st[illegible] listing three people who made them feel good about themselves and three who made them feel unworthy. Then they are to think about why these experiences affected them -- and to get in touch with their feelings.

Following the individual reflection, the gifted students can then hold total group discussion on the importance of realizing one's influence on others and relating the proverb to their experiences.

Through experiences such as Pithy Sayings, Celebrity Interviews, You Speak: I Speak, I Can Only Yes/No You and Brainstorming, gifted students can enjoy better and more satisfying relationships with one another and others.

In summary, the group dynamics goals for gifted can be illustrated by the following:

1. Knowing and trusting others,
2. Accurately and unambiguously understanding others,
3. Influencing and helping others, and
4. Constructively resolving problems and conflicts with others.

Through small group activities in which they are guided to lis[illegible]n, check perceptions, question and value others, the gifte[illegible] can be guided in classroom experiences to become fully functioning. These activities in small group dynamics are uniquely suited to the gifted because of their critical thinking powers,

questioning ability, keen insight, reasoning ability, abstract thinking ability and, lastly, their keen enjoyment in the world of ideas and words.

Independent
Study

Independent Study

Independent study is one of the most promising areas for developing curriculum for gifted since it builds upon the gifted student's desire for self-initiated learning. Through independent study the gifted student can experience responding to his environment. The teacher's role in independent study becomes that of a director, encouraging the gifted to initiate projects of their own. These projects can be used successfully in special groupings and enrichment plans.

Through independent study, the gifted student can acquire motivations and skills which will help him to continue learning through his life.

A simple format that can be used with gifted primary school children is as follows:

My Independent Study

What I Want to Study About	How I will Go About It	What I Will Do With the Knowledge
1. I want to learn about math, algebra, geometry, and fractions. 2. I want to learn more about word problems.	1. Ask an expert in the field or math teacher. 2. Consult different math books 3. Find books in the library about math.	1. Help other kids with their math in the room. 2. Be a math tutor for other grades. 3. Set up math center in the pod for others.

The above independent study mapped out for a gifted 4th grade boy by his teacher indicates how the teacher wisely leaves most of the planning of the activity to the students. The studies are planned on a 1 - 1 basis with each child and takes less than ten minutes per child.

When the independent study is planned, a duplicate can be placed in a file for easy referral to know what each child is pursuing and to use for accountability purposes, i.e., John Jones mapped out four independent projects in which he accomplished all of his objectives.

For older students a format such as that listed below can be utilized:

Independent Study Worksheet

Content to be Studied	Resources	Learning Process/Product
1. Animals (kaola bears) 2. Where do they live? Do they eat meat or plants? 4. What color are they? 5. Do they have any worthwhile ecological functions?	1. Library-books 2. Wild Kingdom TV shows 3. Encyclopedias 4. Travel Bureaus for recent visitors to Australia (interview)	1. Outline information and make a final report 2. Oral report

The above independent study was planned for a thirteen year old junior high student, and indicates the same sort of format but is worded in more simplistic terms.

Many teachers are fearful of self-initiated learning because they are used to having all the children study the same subject matter. Fears about these differences in content can be reduced by giving the students broad topics and under the umbrella of i.e., Hopi Indians, each child would choose an individual topic. This would provide a unifying theme and all the reports or projects would have a thread of continuity.

Fears about different content can also be reduced if teachers will provide the gifted students an opportunity to share their studies with the entire group. This shared communication is very important for the gifted, as they have a keen interest in communicating with others and what they learn from their independent studies becomes even more meaningful to them as they share their intellectual excitement with others.

These sharing sessions are also opportunities for the teacher to demonstrate that they are still excited about learning and how important they think self-initiated learning is for the gifted student. Through enthusiastic modeling by the teacher, these skills of a lifetime can be learned and utilized to their utmost.

I don't have anything to do!
Things To Do Boxes

Things To Do Boxes

The often heard complaint of the gifted child in the regular classroom and even in special gifted classes as well is "I don't have anything to do" -- to help alleviate this complaint, Things to Do Boxes can be created. Things to Do Boxes are usually developed around a central stimulus material such as a book, a record, a play, film or film-strip. The Things to Do Boxes idea lends itself to both elementary and secondary teaching. They can be used as extenders of regular activities which can be considered vertical enrichment, allowing the student to pursue his interest in a given subject such as mathematics at a higher level or they can be considered horizontal enrichment, encouraging the gifted student to explore facets of a selected topic such as Mayan Indians, for comparative study in a unit on North American Indians.

An example of a Things to Do Box for gifted first and second graders is an 11 x 15 box covered in bright lime green contact paper which opens like a cupboard.* The central stimulus is a delightfully colored book entitled Best Counting Book Ever, by Richard Scarry and published by Random House. The major character is Willy Bunny and he practices counting all day. For those of you who have watched with fascination the wonder and excitement of counting that goes on with a gifted child's growing sense of independence with numbers, you can imagine their joy in this book. Children count cats, mops, watermelons and engines -- beginning with one Willy and ending with 100 fireflies.

The variety of activities in a Things to Do Box are all centered around the central stimulus and the outside of the box is covered with large black numbers marching on one side and math problems on the other. Inside there are lime

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* Adapted from a Things to Do Box created by Steve D 'Angelo, a teacher in Parkersburg, West Virginia.

plastic eggs with multi-colored beads for the gifted child to estimate how many there are, place that number on a piece of paper and then count to see how accurate their estimates were. A cassette of number songs is also included which the children can listen to and enjoy. Free space is on the tape where they can tape their own responses to the songs and listen with glee as they hear their own voice.

The ever present flash cards are included in the box, along with a stop watch and tally card for timing oneself or working with a friend. Digging deeper, one finds gaily laminated colored worksheets that the children can answer with a red crayola and then wipe with the enclosed Kleenex when finished. Laminated mental math sheets with answers to be written on long tabs which can then be pinned on the Math Monkey are also in the box for an added sense of fun and "I've been here" - with one's answers and names pinned for others to see. Answers are placed on the back of all the laminated sheets to encourage the gifted children to work independently of teacher aid.

At the bottom of the box, a silver egg holds several blocks which have been painted with numbers with instructions saying, "Roll the dice and add the numbers and when you reach 100 -- you have won." Again, this activity could be played with one gifted or two. Finally, multi-colored felt and scissors are included to encourage students to design their own felt cutouts for the enclosed flannel board and then to create an original number story to be shared with others. The activities are endless and limited by only the creativity of the teachers and the students. As each child is free to add new activities to the box, the wonder increases with usage.

Many itinerant teachers of the gifted are stumped on how to serve the gifted child when he is in the regular class. The use of Things to Do Boxes is is one example of how the itinerant teacher can serve the gifted child. Boxes

can be created for individual children which would extend the regular classroom experiences. It also goes without saying that the box should be shared with all the children in the class.

Older gifted youngsters have also enthusiastically shared and prepared Things to Do Boxes for younger gifted children. Such activities build on their social sensitivity and willingness to share. The gifted student's creativity is quite noticeable as they plan activities that they think will bring excitement to the eyes and mind of a younger child.

Recently in a gifted teacher training course, the teachers each created a Things to Do Box, ranging from secondary boxes on The Hobbit, Othello, Creative Art, Self Awareness-Free to Be Me, to elementary boxes such as Animals Nobody Loves, Motorcycles, Willy Wonka's Chocolate Factory, Mrs. Piggle Wiggle and countless others.

Try your own Things to Do Box. You need one large box, a central stimulus such as a book, film, filmstrip, record or play -- then add a cassette, plastic multi-colored eggs, creative activities laminated for heavy use, games or puzzles. You may also want to have the gifted youngsters dress up as one of the central characters particularly when they present the box to younger children.*

As one child who was exploring a Things to Do Box, built by his teacher using Willy Wonka's Chocolate Factory said, around a mouthful of candy which he had secured from a card reading "to reward oneself." . . . "this is just like a party -- a party just for me." To that one might reply, what a way to facilitate a gifted child who says "I don't have anything to do."

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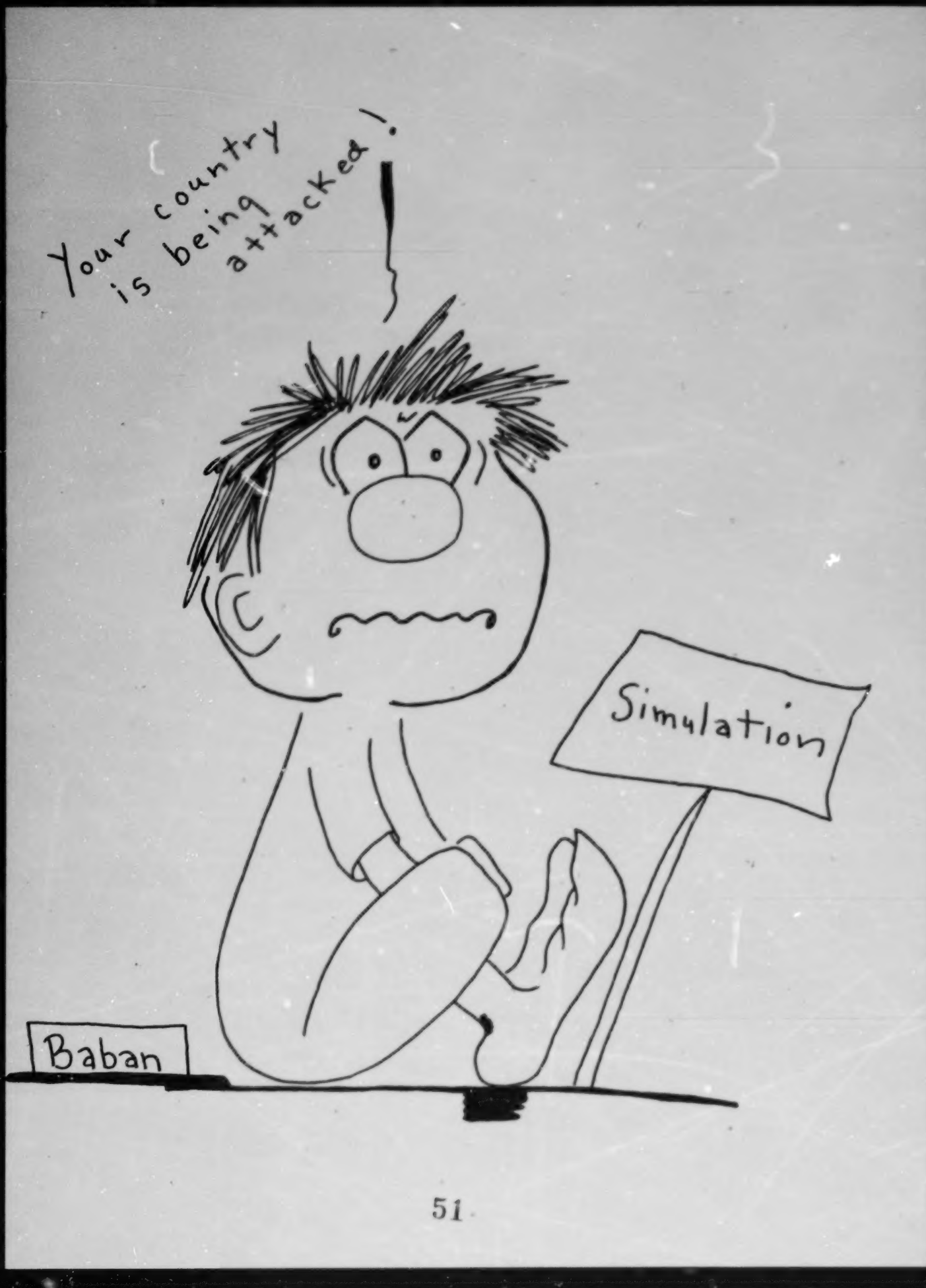
*Bynum, Margaret, as presented at the International Reading Conference, Jacksonville, Fla., 1976 as Pandora's Box idea.


Your country is being attacked!
Simulation
Baban

Simulation

Play and games have long been recognized as valuable tools for educators. Today teachers of gifted are rediscovering the motivational value of play and games in the form of simulation -- activities that simulate real life situations.

Why is simulation so effective for gifted in the classroom?

. . Simulation has high motivational value because students see an immediately useful reason to learn -- to succeed and win the simulation game.

. . Simulation games afford the gifted opportunities to do high levels of thinking. Children demonstrate critical thinking, creative thinking and logical thinking.

. . Simulation teaches social values. Competition is experienced, but co-operation is also utilized to experience a common goal.

In simulation, gifted children act and interact. They become involved in the facts, the process, and the key concepts to be learned in the game. Powerful and deep learning takes place while the gifted children are engaged in exciting and satisfying play.

Key Features of Simulation

First a simulation game must clearly be focused on selected concepts and processes. In this way the game has a clear teaching purpose which is essential to justify the 'gaming process' as a teaching tool.

Secondly the simulation game should involve the students in a simulation of a reality based situation. The game should involve the essential elements of the social process selected for the game.

Thirdly the simulation game must involve the dramatic qualities of a game. There must be points and an understandable way of scoring to insure winners and losers. This of course entails rules.

Rules can be divided into several kinds. There are procedural rules which essentially tell how a game is to be played. Then there must be mediational rules which specify how an impasse or conflict is to be resolved. Another kind of important rule is behavior constraint rules which essentially tell what one player can do and the role specifications for each player. Goal rules clearly delineate the goals and means of achieving the goals. And lastly police rules specify the consequences to a player in breaking one of the game's rules.

To demonstrate how a teacher can devise her own game, the areas as devised by Avis Reid in her delightful book Turn to Page 84 can be used. She suggests that teachers use a problem base for simulation. For example, decide on a concise statement of a problem such as: a communicable disease has broken out in a community.

Then decide on the objectives of the game: the students will experience group dynamics such as reaching a consensus; the students will develop insight into their own personal value system and that of others; and the students will explore various methods of decision-making.

Following the decision on objectives, then a scenario or scenes should be written which could include past events, background information, the present time and setting and conditions that will affect the game: the community is multi-ethnic and comparatively isolated. It is midwinter and the decision on the communicable disease must be made in twenty-four hours.

Characters and their goals must then be identified: Doctors, nurses, parents, teachers, principals and students are involved.

When deciding on their brief description, their physical characteristics and personalities -- the teacher may call upon role playing as a help. The final decision may be made such as the following: the doctor is the only one who knows how the cure must be utilized. He is to be assisted by a panel of citizens which includes two nurses who are against the serum's use.

Each role or some of the role can be spelled out thus leaving no leeway or considerable leeway for the gifted students to 'flesh out' the roles with their own ideas and values.

Following the establishment of the characters and their goals, Reid suggests that an exact point in time be given as when the game begins. She also suggests listing the resources to be used for the game. Whether they be physical, social, economic, political or personal, the resources can be included to give the game greater complexity.

Rules and their administration are the last to be included. These should include those that govern the players, the game pattern, the scoring and how they are to be implemented. In the case of our communicable disease game, perhaps several people (15) have been exposed and there is serum for 8. How can decisions be made to save 8 people and sacrifice the lives of 7 others? Each person could be given a role on the advisory panel and a certain number of points. A consensus could be required to make decisions and a time constraint of one hour could be added for timing purposes.

The last area to be considered in devising a game is the evaluation and feedback. During this time, the teacher can lead the students to examine how decisions were made and how they felt about the decisions. Here the teacher can reinforce positive social attitudes that have been observed and begin to arrange other experiences for information gathering to help the students build better understanding. Analogies can be made to both present and past situations from observations that the teachers and gifted students have made. The debriefing is extremely important and should be allotted 1/4 of the playing time. That is, if a 45 minute playing period is experienced, 15 minutes should be allowed for debriefing.

The format for Design Your Own is as follows: Try your hand.

DESIGN YOUR OWN

Name of the Game _____

_____

Statement of the Problem:

_____

Objectives of the Game:

_____

Scenario: Include past events, background information, the present time and setting, the conditions that may affect the game.

_____

Characters and their Goals: Give brief description of the physical characteristics, the personality, and the player's goals for the game.

_____

A Point in Time: the exact place and time when the game begins.

_____

Resources: Props for the game -- physical, social, economic, political, or personal.

_____

Rules and their administration: to govern players, the game pattern and scoring and how they are implemented.

_____

Evaluation and Feedback: Were objectives reached; can the game be improved?

_____

As an example of the Reid format entitled Design Your Own, the following game entitled Uphill Controversy could be used with sixth grade or junior high gifted

students. This is the first step in planning a game.

Name of Game	Uphill Controversy*
Objectives	To gain insight into how a school system is organized and why changes are made and who makes the decisions.
Scene	Elementary school built in 1920. Fine reputation, dwindling numbers. Many families have lived in neighborhood for 20 years.
Characters	Board of Education members, teachers, children, county financial advisors and Parents
Point in Time	Press Release: Decision concerning possible closure of Uphill school to be made in 3 days. PTA Meeting called to discuss the issue
Resources	Maps showing high school attendance area, location of other elementary schools and number of students in each. State and county transportation guidelines
Rules	Each group will meet to prepare arguments for or against school closure. One member of the group may go to another to try to form coalitions. Any number of group members may align themselves with another group,

* Developed by Pat Gilbert

although leader and recorder must stay in original group.

Each group will present proposal before the board of education. Board will meet and vote on decision. Board will vote for group whose proposal was most convincing. Group receiving most votes is declared the winner.

Evaluation and Feedback

From this stage of development as illustrated by Uphill Controversy, a game can be further developed as illustrated by the game entitled Election of a President. Note the game has been divided into phases which enables the classroom time to be tightly planned and more adequately utilized. An evaluation and feedback time of the day's simulation activities should also be provided each time the students play the game.

Election of a President*

There are five individuals running for President of a country named Mercury. Mercury is a democratic country and the officials are voted in popular vote. The problems is to choose the best candidate and to elect that individual as President. Magazines can be used to make pictures for candidates.

This election takes place in 1979 in a large democratic country. This country has two primary political parties, but there are also several smaller independent parties. There will be a primary election in which the number of candidates will be reduced to two or three. Campaigning will be conducted by each candidate in

* Developed by Phyllis Dusic

conjunction with their campaign and financial chairmen. Between the primary and general election there will be party conventions in which one candidate will be chosen by each party. However, the final decision as to who wins the presidency will be decided by popular vote. Secret ballot will be used for the final ballot.

Each individual candidate must assume a name and identity which he or she will not be able to alter during the campaign. The candidate will be allowed to change or alter his stand on some issues. Each candidate will choose a campaign chairman and a financial chairman who will assist him in making political decisions and participate in all activities.

The game will be divided into phases and each phase will be timed. During these phases each candidate will be able to win points, according to his identity, campaign efforts, financial resources, and ability to outwit his fellow candidates. Points will be subtracted if each phase is not completed in the given time limit or if a major verification discrepancy is found. Before any one can win the presidency, he will have to be joined and supported by at least one other candidate who will then withdraw from the election. The points of the candidate who is withdrawing will then be given to the candidate he supports.

In order for this game to run smoothly, a game director, a timer and a score-keeper must be chosen before the game begins.

Each candidate will be given $100,000 at the beginning of the game to manage his campaign. Costs will be subtracted during the various phases of the game. If two candidates go together, the candidate who is withdrawing may decide to contribute part or all of his funds to the candidate he supports. If a candidate runs out of money, he can still play the game, but he cannot participate in those phases of the game that require money. Paper money can be used.

Game Plan

Phase I-Picking Your Candidate

This phase consists of choosing your candidate, giving him a name and an identity. This identity must include the name of the state he is from, what party he belongs to, basic and foreign policy, professional background, and character or personality traits. Time limit of fifteen minutes is set for this section. Five points will be taken away if the assignment is not completed on time. Ten points are awarded for finishing. Each candidate will be given $100,000 in campaign funds. Before moving to Phase II, a filing fee of $2,000 will be required from each candidate.

Phase II-Facing the Issues

There is a ten minute time limit for this section. Again five points will be subtracted for not completing this phase in the time allowed.

The major issues and points scored for stand taken are as follows:

Issue	Yes	No	No Stand
1. Support increased government spending	8	6	3
2. Supports decrease in government spending	8	6	3
3. Supports strong ecological stand/laws	8	6	3
4. Supports increased manufacturing even at expense of ecology	8	6	3
5. Supports federal aid to foreign countries	8	6	3
6. Supports cutting federal aid to foreign countries	8	6	3
7. Supports increased military expenditures	8	6	3
8. Supports aid to farmers	8	6	3

Look at these issues carefully because no one candidate can be for any two conflicting issues. Also remember that in order for a candidate to win the presidency, he will have to win the support of one of the other candidates. These two candidates must agree on at least three issues. A candidate cannot win the game if he refuses to take a stand on more than four issues.

If the candidate does not complete the assignment in the ten minutes, he loses five points.

Phase III-Campaigning for the Presidency

This phase will be handled primarily by the campaign and financial chairmen. They must decide how much money and in what type of campaign this money should be invested. A candidate can invest more than once in any one type of advertising.

Type of Advertising and Cost	Cost	Points
A. Television Commercials	$10,000	10
B. Newspaper Commercials	5,000	6
C. Setting up campaign headquarters in key cities	40,000	15
D. Billboards	3,000	4
E. Travel expenses for the candidate to campaign in person	35,000	18
F. Direct mailing to individuals	15,000	12

Phase IV-Primary Election and Party Conventions

At this time campaign chairmen will present their candidates and barter with other candidates to win their support. By means of oral vote from the states each party represented will choose one candidate. The states may divide their votes, however if a candidate is from their state they must stay with him during the first ballot. Should more than one candidate be from one state, the state's vote will be divided equally on the first ballot.

Each party will have their own convention and the activities, presentation of each of the candidates for that party, and voting will be conducted by that party chairman. If any party should have only one candidate, then that candidate shall automatically become that party's candidate. Any candidate who wishes to withdraw should say so at this time. The withdrawing candidate can give his points and support to another candidate as long as these two candidates agree on at least three issues. The candidate in the race may change his support. If neither of the two above is possible then the two candidates who wish to join efforts must subtract fifteen points from their total because there will be a major verification discrepancy. The withdrawing candidate does not have to give his support or points to any other candidate. Three or more candidates may join together as long as the above rules are followed.

A fifteen minute time limit will be set for each party convention and five points will be subtracted if it is not met.

At the end of the convention, the candidate must pay his bills totaling $10,000 before he can go on to the general election.

Phase V-The General Election

Points in this part of the game will be scored by matching the issues with the interests of the states. States may divide their vote in any way they wish except that they may not vote for a candidate who clearly indicates that he does not support their best interests.

There will not be a time limit set for this phase and one individual will be placed in charge of each state's votes. The voting will be done by secret ballot. If no candidate wins a majority of the vote on the first ballot, then subsequent ballots will be taken until one wins a majority of the vote. The voting will be conducted by the game director. Votes will count as points in this game.

States	Votes or Points
A. Bountyland - a rural farming state with low population. Supports strongly decentralized federal government	18
B. Picturesque - primarily a tourist state with high density of population	26
C. Metro - a highly populated state which depends on manufacturing and industry for income	28
D. Inlet - a very small state primarily dependent on port trade and fishing for its income	14
E. Potluck - large state with much industry and varied racial population	18
F. Calabash - large farming and cattle raising state; much of their produce must be exported	20
G. Fairhill - a medium state that is under-developed and has no major industry. Primary means of support - small farms and tourist trade	16

At this point in the game, the scorer will add up the points and a president will be elected.

It can be noted in the game Election of a President that the concept of a 'reality based activity' is the key part of the simulation. Gifted students who have experienced this game will have a fine grasp of the dynamics of selecting a president as well as what it entails to be a candidate. Sixth graders as well as secondary students can profitably experience Election of a President.

Younger children can also experience simulation through situations such as the following called Calculator.

Calculator

. . . Each child plays the role of a number. The ten digits of the decimal system are placed on large cards which can then be pinned to the shirts of the students. The teacher or student leader then calls out problems such as what is the product of 3 and 4. The first children to arrange themselves to show the answer or the first 1 and 2 together wins a point.

Simulation helps make learning as exciting as it should be by involving the total intellect. A bibliography is included in Appendix on suggested games and materials. However, the real strength of simulation can only be realized with your creativity in developing your own games. Feelings, beliefs, ideas and exciting action are waiting for you and your gifted students as you become involved in this playful way of learning -- simulation.

?
Inquiry

Inquiry

In beginning a discussion on the importance of inquiry, a quote from Arthur Combs' book The Professional Education of Teachers, will help to establish a psychological/philosophical stand... "no matter how well subject matter is presented, it will have no effect upon the student until he has become personally involved in the learning process. Learning is not passive. It is an active process requiring a personal commitment on the part of the learner."

Consequently, one of the most significant tools the teacher of the gifted can utilize to encourage personal commitment of the learner is the inquiry-oriented teaching strategy, as inquiry places the gifted student in the central role of the educative process.

Inquiry strategies engage the pupil in decision making regarding his own instruction. Inquiry further views the gifted student as seeking, probing, and processing data from his environment.

Gifted students who have experienced inquiry sessions have strong feelings about inquiry as indicated by this student's statement, "It's fun to make decisions for yourself and think about it -- instead of having someone else tell you all the time."

Inquiry facilitates other important thinking operations than just the decision-making as mentioned by the student, such as comparing, summarizing, observing, interpreting, and criticizing. Its particular applicability for gifted students is that it involves the higher levels of thinking where they are the most facile.

Inquiry has major applicability for gifted students in the area of science. In science the gifted students study scientific phenomena with the approach and spirit of the scientist. Time is not important. The answers sought are not known in advance by the gifted students. Inquiry is highly motivating in that the gifted are genuinely interested in finding solutions. Questions such as "How do

we know?" "Are we justified in these assumptions?" and "Are we justified in this conclusion?" abound when gifted students and their teachers are deeply involved in inquiry.

Steps in Inquiry

First a problem of some kind is identified and narrowed until it seems probable that it can be solved. Then hypotheses are proposed by the gifted students in order to guide the investigation. This is followed by proposing ways of gathering data which can range from controlled experimentation, observation, reading or viewing films. These proposals are then cooperatively evaluated and strategies are mapped out. Data is then gathered, and summarized with tentative conclusions about the adequacy of the hypotheses. Lastly effort is made to formulate scientific explanations which can then be incorporated whenever possible in the body of known scientific knowledge.

Gifted students may investigate in small groups, as a class, or as individuals in the gathering of data to test the hypotheses. This would depend on the objectives of the teacher. Is independent effort or cooperative study the goal at the time of inquiry? Both are legitimate and needed experiences for gifted students.

Role of the Teacher in Inquiry

The teacher of the gifted using inquiry conceives of her role as that of a guide, counselor or consultant -- but certainly not the answer giver. The teacher facilitates by providing situations or materials that create questions in the minds of the students. The teacher may utilize a systematic answering of 'yes' or 'no' in encouraging the students to observe and then do mental experiments, formulating hypotheses and testing theories. This type of discussion/inquiry can be an electrifying and stimulating experience for gifted students.

Example of Inquiry for Elementary Gifted

An example of inquiry for elementary gifted students builds on their natural curiosity about phenomena. Children discovering the apparatus below will ask questions similar to the following:

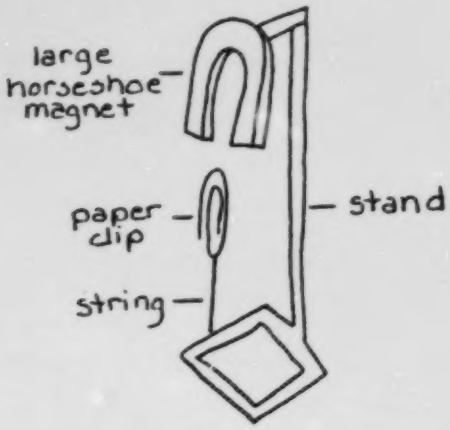


Figure 1

What keeps the paper clip up?

Will it fall if we poke it?

Would it stand up if the string were metal?

How long will it stand up?

What's between the clip and the magnet?

Will a bar magnet work?

These spontaneous questions have hidden within them potential for inquiry training. The list of concepts included in the above experiment could be: magnetic force, magnetic induction, forces in equilibrium. These concepts of course do not exhaust the list, but they do give some idea of the versatility of a somewhat simple experiment in extending scientific thinking.

Another way of stimulating inquiry in gifted students is labeling items with provocative questions. A rock could be labeled with 'I am a rock, I'm made of

minerals.' 'Are there other rocks and minerals in this room?' 'What is the oldest rock in this room?' 'You add a question to stump someone about rocks!'

Science "curiosity boxes" are also well received by gifted students. These should be changed often and could include a variety of seeds with questions such as 'Are all of your seeds the same?' How are you different or alike?'

The essence of inquiry is experimentation -- genuine experimentation with many phenomena in order to answer questions without using the crutch of a textbook or other authority.

Along with the experimentation requirement is a necessity for a permissive, cooperative classroom atmosphere, which encourages the teacher and gifted students to examine the evidence they find, to assess their hypotheses and assumptions, to arrive at reasonable and logical conclusions that are consistent with the data -- in short, to think and act like scientists. The heart of inquiry is direct comprehension of nature coming from a rich exposure to first-hand experiences.

Resources

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...Some are born to greatness, Some have it thrust upon them...
Central Stimulus

Central Stimulus: A Vehicle for the Humanities

...we will have acquired models of high thought and feeling. We will feel buoyed up by the noble stream of Western civilization of which we are a part.

Clifton Fadiman

The importance of the teacher of the gifted utilizing and providing opportunities for models of high thought and feeling cannot be underestimated. This is particularly true in humanities. One method is the central stimulus teaching technique which can readily be used to explore music, art, and literature. Through the use of the central stimulus technique, the teacher of the gifted can encourage them to begin a lifetime adventure with greatness.

LITERATURE

In literature, hundreds and thousands of selections are available on tape and on record. By using a central stimulus of poetry by Frost such as Leaves of Grass -- all of the gifted students focus on one experience -- Frost reading Frost. Granted that each gifted student brings a variety of past experiences to this shared classroom experience of the central stimulus; however, the basal involvement is there for the teacher to build upon. Frost reading Frost and Sandburg reading Sandburg are memorable experiences that lend themselves to extension.

The use of the central stimulus can easily become a high point in the school day through a 'marquee' featuring the book, record, film or painting for the day. One teacher of the gifted used a string of lights and plastic letters to announce the coming afternoon attraction. If shelves or display tables are available, books, records, or films to be used as central stimuli can be freely persued to heighten the gifted student's interest.

Following the shared experience of the central stimulus, each gifted student can use their special notebook where they note the central stimulus and their personal reactions to the experience. These responses can be free and spontaneous

or models can be used such as the following:

Central Stimulus Reaction

Central Stimulus - Debussy's La Mer

What: (Recall) The music told about the sea -- how it was quiet sometimes and other times it raged. It was in four parts. The loud part was the storm. I heard the bell of the sunken cathedral.

So what: (Feelings) I felt calm when I heard it and some colors it reminds me of are blues, reds and greens -- like my fish in my tank.

Now what: (Action) I want to watercolor my calm sea and listen to some more of Debussy. I saw one in our record collection about a faun that I like.

In this central stimulus reaction notebook, a fourth grade gifted student is utilizing Terry Borton's model of what (recall), so what (feeling and personal relating) and finally now what (action or translation) as introduced in his book Reach, Touch and Teach. These private reactions can be utilized for future general classroom discussions in which the varied responses of all the gifted students can be shared or they can be kept in individual folders for personal use.

Followup activities can include dramatizing literature through skits, role playing and performing formal creative plays that build on the theme of the central stimulus.

In a recent visit to a gifted program utilizing the central stimulus technique students were studying Shakespeare's Tempest. They had sketched maps of the magic island; painted murals of Caliban and Miranda's adventures; constructed models of the scenes in Act I; designed puppets to dramatize favorite scences; built dioramas for the library of the opening and closing scenes; written essays on Caliban's life styles; researched reports on Shakespeare's ongoing feud with his peer playwrights and constructed countless exhibits and displays of materials to support and supplement the study of the play. The room literally throbbed with excitement!

Another meaningful followup to a piece of literature is the use of films, slides and film-strips. Coronet films in particular has a large selection of 16mm sound films on literature. The gifted children in the above study could certainly have profited from viewing Midsummer Night's Dream: Introduction to the Play and comparing it to the Tempest and Shakespeare's more mature style.

MUSIC

A central stimulus of music can become an exciting enrichment activity through the imaginative use of a printed program, intermissions with refreshments, and role playing concert going. Following this experience a discussion can be held concerning concert etiquette, famous concert halls and conductors, as well as various forms of music.

An equally favorite central stimulus in music with gifted is opera, particularly AIDA. Students learn the stories of the group operas, and then dramatize them. One gifted sixth grade produced their own opera with many beautiful arias translated into 'modern language usage' and thoroughly enjoyed.

Music extenders can be such activities as illustrating the music. Quite effective music for visual representation are pieces such as: Grant Canyon Suite, Night on Bare Mountain, Tyl Eulenspiegel, Fountains of Rome, Afternoon of a Faun and the like.

Gifted children also enjoy making puzzles, and doing creative matching quizzes or contests to test their knowledge of the various central stimuli that they are working with and enjoying. This is also an effective evaluative measure for the teacher.

ART

Art as central stimuli can be enjoyed through slides, prints, films and, of course, field trips to museums.

One excellent commercial source is Panorama Slide Programs, which is available through Columbia Record Club, 111 Fifth Avenue, New York, N. Y. A subscription includes 32 slides narrated by an art critic, a book of the paintings and the gallery, with a special projector to show the slide cards. Each month the teacher and students visit a different world famous gallery via the slides.

Good reproductions for use in the classroom can be purchased for as little as 2¢ to 25¢ for each print from Perry Pictures, Inc., Malden, Mass.

Extenders for art stimuli can be art appreciation notes with a simple format such as the following:

My ART NOTES

Name of Picture:

Artist:

What I Like Most:

Once gifted children become attuned to the arts through central stimuli in the classroom, they can be on the lookout for magazine and calendar reproductions that they can dry mount and share with others. One gifted class made an art lending library for their school, thus very effectively sharing their enrichment with the entire school.

A fine extender in art is to encourage the gifted students to analyze a particular painter's or sculptor's style and then to try their hand in painting or sculpting in that manner. In a gifted class, the students copied the artist's object and then tried their technique on original compositions. This was a fine way for them to gain more appreciation for the artist's talent.

Through the creative use of the central stimulus technique gifted children and their teachers can bring the humanities into their classroom and begin to develop not only an appreciation for the artists, but in many cases they will begin to develop the gifted child's budding talent to a finer degree.

A better mousetrap ?

SYNECTICS: TOOL FOR PROBLEMSOLVING

.....synectics exist to help solve their own problems
more creatively and efficiently.....

As teachers of gifted, it is important that we direct our attention toward developing strategies to facilitate more effective problemsolving. One technique devised by W.J.J. Gordon to stimulate problemsolving is that of synectics. The term synectics was coined by Gordon, a co-founder of Synectics, Inc., as a process to stimulate creativity through analysis.

In his research on creativity, Gordon found individual creativity to be associated with certain psychological states and furthermore that these psychological states could be approximated through artificial means. Gordon approximated the "speculative mental state" through two procedures -- that of analogy and metaphor use.

Synectics can be thought of as specific stages or as skills. The first stage required active listening skills. One way to encourage the gifted child to develop better listening skills is that of giving "feedback" as mentioned in the section on small group work. This feedback can be accomplished through paraphrasing such as "I hear you saying that synectics appeal to you" or by relating it to one's own experience with a specific example, such as "once when I was almost asleep, I was thinking of a problem and an idea literally presented itself -- I see that as a speculative state!"

These listening skills will be most important in the beginning stage of synectics.

The format of a typical synectic session might look like the following:

PROBLEM FORMULATION

↓

One person defines a problem, indicating what has been tried and the type of ideas wanted

↓

GROUP IDEATION

↓

Group members share essence of ideas as they occur. These are collected as - How to statements.....

↓

POTENTIAL GOALS IDENTIFIED

↓

Potential valuable goals are identified by the problem giver

The above synectics session may take from fifteen to thirty minutes depending on the size and fluency of the group.

The facilitator or teacher decides when the introduction of speculation or creative ideas might help to spur the process. This phase is known as an excursion. The facilitator asks the group to think of analogies in a different environment. For example, if a group of gifted is trying to invent a new toothpaste -- they might speculate on how it feels to be toothpaste (personal analogy). Excursions relax the group, take them away from the problem -- and return refreshed.

Another type of excursion that could be used is to build a mental picture of the key phrases in the earlier material. If and when the facilitator feels the group is sufficiently distant from the problem -- they then return to the problem. Through excursions, there is a concentration on the mechanisms that one normally uses to imagine and speculate, but the steps are exaggerated! Through seeking association and personal thoughts that might otherwise seem irrelevant, potentially valuable facts are often located. Teachers need to be sure the serious purpose behind excursions is not overshadowed by the pleasure that the gifted will derive from the excursions.

Synectics sessions may include morphology attribute listing as explained by Rickards (1974). Gifted children searching for a new toothpaste, could use a

product matrix such as the following:

Product Matrix

FORM -

FUNCTION -

CONTEXT -

USERS -

A finished matrix might include ideas which could then be circled at random for a new approach!

FORM - paste gel powder cream (solid)

FUNCTION - polish (protect) clean whiten purify

CONTEXT - bathroom traveling (work) morning

USERS - children (all people) animals

Now the gifted group has discovered a solid that could protect all people at work. Inherent in morphology attribute listing is the seeking of valuable information for unique approaches.

Following the excursions or speculations, criteria would then be established by the group and a disciplined manner of critiquing or evaluating would be accomplished.

Synectics has been mainly utilized by business, but has educational potential for leading gifted to imaginative thinking and problemsolving.

Choose a problem, i.e. How Can I Build a Better Mousetrap and free associate or use analysis in a different environment such as thinking of how an insect catches its prey*. You will be pleasantly surprised at the enthusiastic approach gifted students give to synectics and the increase in their "wild ideas" as they also increase their fluent thinking. As fluency increases, the likelihood of

* Idea demonstrated by William E. Mitchell, co-founder of Creativity Unlimited, Florida State Workshop on Gifted, 1976.

originality is maximized. Synectics also include procedures for improving interpersonal behavior in groups, as well as procedures for increasing the creative potential of group members which is a major concern in gifted education.

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...I want to do
what I want to do
when I want to do it!
Guidance
and
Counseling

Guidance and Counseling Needs of Gifted and Their Parents: Use of the Child Study Technique

Educators, administrators and psychologists who are currently working with gifted programs are becoming more aware that if gifted students are to have a real choice, either personally or professionally, they must have help in learning how to better understand themselves and how to make wise career decisions. Authors such as Gowan and Demos (1964) and most recently Gallagher (1975) have attested to this awareness.

Yet very little direct guidance or support is being given to gifted youngsters or to their parents in existing programs for gifted. However, paradoxically few educators would fail to list the importance of the home and school working together as agents of socialization and identity forming. The crucial factor appears to be the dilemma of deciding just how to go about meeting the needs for support and guidance for either the gifted child or his parents.

One means of aiding gifted students and their parents in building a better understanding of themselves and what it means to be gifted is the child study technique (Sisk) which was developed utilizing the ideas concerning group counseling and individual growth of Mahler (1969) and Dinkmeyer (1965). This technique is basically a helping process, in that it aids individuals in understanding their own behavior as well as the behavior of others. In a sense, it is an educational process in that one is actively involved in modifying their own personal attitudes, and consequently becomes more able to deal with the problems of being gifted.

The child study technique is so named in that it focuses on the gifted child/parent relationship and evolved from counseling sessions with gifted students and their parents.

In the technique, parents increase their acceptance of goals which differ and learn or unlearn attitudes, values and behaviors which might be detrimental

to gifted children, i.e., the gifted child's difficulty with high control parents. This independence characteristic of gifted becomes a real problem to a parent who wants to give values and direction to their children.

The child study technique is a group interaction process and as such requires several given parameters:

(1) the group size should range from a minimum of ten members to a maximum of twenty which insures sufficient numbers for lively discussion.

(2) an atmosphere of permissiveness, caring and mutual trust must be established to encourage participation by all members.

(3) the group should meet a minimum of ten times for at least one hour to encourage growth in learning effective habits and patterns in working with others.

(4) there must be a reality orientation established in the group which emphasizes specific problems or concerns.

(5) the group should be a closed group in the sense that they should have at least one characteristic in common, i.e. gifted children or parents of gifted. All members should also agree to complete the ten sessions. This committed time and common interest helps foster good group interaction.

Child Study Process and Stages

The first session begins with the leader involving the group in 'warm up' activities in which members are all given opportunity to interact on non-threatening topics or boundary breaking questions such as 'what color is love?' or 'what animal would you like to be?' or 'what sound would you use for happiness on a record?'

Following several questions such as the above, the leader, by modeling interest, deep listening and acceptance, would outline briefly and simply the child study technique. It could be accomplished by such statements as:

'In these sessions, we will try on a new way of responding to problems or concerns. In the first stage, Problem Focus, each member will identify a problem or concern similar to the manner in which boundary breaking questions were handled. In day to day living, we often are overwhelmed by a problem because it appears large, all encompassing, and we can't get a hold of it. In this technique, we will learn how to zero in on a concern and suggest solutions.'

The leader chooses one concern to discuss that embodies mutual concern to all members and writes this concern on the board in an HOW CAN I format.....?

In the second stage, the leader asks for feedback from other group members concerning the stated problem. This stage is called the Relational Stage and focuses on feelings. The idea is to see that many of us have similar concerns and to alleviate some of the nervousness of members, particularly the nervousness of the member who gave the concern.

Following the relational state, comes the Alternative state in which members offer as many solutions as they can. This solution gathering is done at random with little or no evaluation taking place.

At the end of the alternative stage, the group member who stated the concern or problem will choose one alternative which he or she thinks is feasible to experiment with during the time interval between sessions. He or she then reports on the success or failure of the alternative at the next session. At this Followup session, or state, a new problem may have been generated or the problem may have been solved through the group process.

In the child study technique, the emphasis is on the examination of individual member's basic patterns of relating to others. Each member is encouraged to recognize and express their own views and feelings and pressure to conform is minimal. The group reinforces each member's confidence in his own perception.

Input sessions of information on the unique needs and characteristics of the gifted child are given when information is needed by the leader. Patterns

of group behavior and thinking are also pointed out by the leader in an effort to give strong support for people to think for themselves.

Each individual group member decides on what they want to share as a concern as 'they see it.' No attempt by the leader or members is made to second guess any hidden intent. The leader functions as a facilitator of discussion, a summarizer and as a group member. It is important that the leader not intellectualize or set himself above the group, as this establishes barriers to communication.

Typical Problems Discussed

With groups of gifted the following have been concerns.

How can I get my mother to give me more freedom with my friends?

How can I get my dad to give me an allowance that I can spend?

How can I keep my mind from jumping from idea to idea?

With parents of gifted the following have been concerns:

How can I get my daughter to take a nap so not to be grouchy as the result of loss of sleep?

How can I help Jim finish his homework in the afternoon?

How can I insure that my daughter will be ready to go out when the family is ready?

How can I get Sue to help with chores?

As can be seen by the above stated concerns, they are simple, but frustrating, problems to gifted children and their parents. Intense problems are better saved for individual sessions. The emphasis is on developing skill in looking for alternatives in solving problems and crisis situations in light of understanding the unique needs and characteristics of the gifted.

Summary

Comments of gifted students and their parents who have participated in child study sessions summarize the merits of the use of the technique. Outcomes can be

viewed as the following:

Exploring one's relationship with others

"I always wondered why I had difficulty getting along with others, but now I'm beginning to see why."

"Billy is headstrong too -- guess he needs to think it out for himself."

Becoming more effective socially

"I'm less afraid of meeting people and talking to them "

"My daughter doesn't threaten me as much now -- and I can meet her on her level."

Re-examining one's present values and trying new ones on for size

"I found myself saying, do it my way, now I stop and think about how important it is that she think for herself."

"It's hard to be less directive, but I'm getting there."

Learning to understand others and their uniqueness, learning to listen

"He tunes me out less now that I listen -- I mean really listen."

"I'm amazed that we can all feel so differently about the same experience."

Providing a safe climate for healthy exploration for one's own experience

"Forcing her to follow my rules wasn't working, we talk now and I feel better. I'm more relaxed -- more like a real parent and a friend too."

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